



Master Media Design
Networked Media
Course Handbook 2010/11

Piet Zwart Institute
Willem de Kooning Academy Rotterdam University (Hogeschool Rotterdam)
<http://pzwart.wdka.hro.nl>

(Please note that this handbook is currently being reviewed and revised by the new Course Director in conjunction with staff.)

Introduction

Welcome to the Networked Media course of the Master programme in Media Design and Communication at the Piet Zwart Institute of the Willem de Kooning Academy in Rotterdam!

Networked Media is one of currently five postgraduate courses at the Piet Zwart Institute, along with Lens-Based Media, Fine Art, Retail Design and Art Education. All courses share activities and resources. We have particularly close ties with the Master Fine Art, with whom we share the building in the Karel Doormanhof, and the newly established Master in Lens-Based Media. You are encouraged to find more about and join in with their seminars and other activities.

The following document is a key reference throughout the course. Please do keep hold of it throughout your Master studies. Refer back to it for any questions and, where appropriate, use it as a guideline for any work that you are about to embark upon.

Subject of study

Media design in general, and networked media, are terms that need explanation. In a nutshell, networked media design is about creating information systems involving computing and, typically, the Internet. Doing so, we critically investigate what media are and how they are configured. This is why this Master program combines artistic design practice, theoretical reflection and technological learning.

It is important to know that the very term “media” has vastly different meanings for different practitioners, theoreticians and schools. Often enough, current media theories and design approaches are little more than a product of the content that currently dominates them. It's also important to state that media look radically different from a Western European city such as Rotterdam than they do from the other side of the globe. Issues of access, technological infrastructures, economy and education create the terms on which media are experienced. Information systems do not exist in a historical, cultural or political vacuum; information does not exist without context. Even the low-level information technology we use is not neutral or objective, but embedded into and shaped by social, political, economic, aesthetic interests. Our programme reflects these issues, and aims to help you develop and rethink your practice based on that reflection.

Design your own media

Practically speaking, the focus of our course is on computational, networked, digital media or information systems. Unlike many if not most other art school media programmes, we do not merely consider computing and the Internet digital updates to analog audiovisual or typographic tools, but media of their own, with their own culture and specific design requirements. For us, it is important to understand media design as design of media as opposed to merely designing *with* or *for* media. We do not think of media design as just creating “cool” audiovisuals on top of prefabricated information architectures. Rather than taking information technology off-the-shelf and out-of-the-box, you are encouraged to rethink and design your own media.

Free + Open Source

This is why Free and Open Source Software and a do-it-yourself ethic play a key role in

the programme. Aside from its obvious benefit of giving you advanced operating systems, server software, database engines, programming languages, network clients and audiovisual authoring toolchains at zero cost, Open Source software tends to be extremely modular, open to DIY and custom applications. It gives value to seemingly outmoded hardware, and provides you with building blocks for your own projects rather than solutions that strongly preformat the function and aesthetics of your work. Do-it-yourself also means that – within reasonable limits of a non-engineering school – you learn to program, administer and build your own projects instead of having them built for you by programmers and technicians.

Technological, critical and practical learning

How can the overall issues and collisions of “media” translate into a practice that embraces information technology while keeping a critical view of it? This is a basic question – and continuous effort – of our study programme, for students as well as for staffers. It explains why our media design approach is based on both intellectual and practical, multidisciplinary skills. This course has different components that are tightly interrelated to each other and reflected by different teaching modules: thorough technical learning, critical study, and practical design and artistic work.

In our technical sessions, you learn not just to use digital media, software and hardware, but how to program, to build and rebuild them. This gives you a thorough insight into how digital media work at a low level, not only in terms of their functionality, but also in regards to the politics, aesthetics and economies coded into their architectures. With this knowledge, you will be able to critically reflect media, involve yourself with cultural and media theory, art and design history and develop media designs as practical research. But theory is not an end to itself, but a hands-on empowerment tool for your practice – regardless whether you identify your own work more specifically as design, art, activism or research. Our approach to media design strives to combine and cross-pollinate all four while guiding you to succeed as a professional media practitioner.

We are looking forward to two years of intense and exciting work, study and experimentation!

Institutional basics

The institutional structure of this course and school is not easy to understand: What is the Piet Zwart Institute, what is Willem de Kooning Academy, what is the Hogeschool Rotterdam, which of those is the school where you study? Here is a quick overview, starting on the lowest level:

- This course is the *Networked Media* specialisation of the Master programme in Media Design and Communication.
- The *Master Media Design and Communication* consists of two specialisations: *Networked Media* and *Lens-Based Media*. These two courses have the same curricular structure, but different staff, different students, are located in different buildings and have different course contents. In short, *Networked Media* is about computational, digital, networked media, their practical design and critical reflection, *Lens-Based Media* is a Master programme for digital image making: filmmaking, animation and photography.
- The *Piet Zwart Institute* consists of international Master and research programmes. Next to the two media programmes, these include Master study programmes in Fine Art, Retail and Interior Design and Art Education. It also includes research projects: *Communication in a Digital Age* (headed by the course director of Networked Media) and, in the near future, *Cultural Diversity*. These research programmes involve public conferences, publications and visiting international research fellows. Master students are cordially invited to all their public events, and can participate in the research programmes with their own projects. Although the Fine Art and Networked Media Masters are both located in the Karel Doormanhof 45, the Piet Zwart Institute does not have one physical address and is not a school of its own, but a part of the Willem de Kooning Academy – the umbrella of its Master and research programmes.
- The *Willem de Kooning Academy* is Rotterdam's art school. It was founded in the late 18th century. The painter Willem de Kooning and the designer Piet Zwart are its most famous graduates. The WdKA has more than 2100 students, the vast majority of them studying in design-related Bachelor programmes. We often collaborate with WdKA's *CrossLab*, a cross-disciplinary digital media workspace, and encourage you to check its public lecture programme.
- The WdKA in turn is a part (officially: an institute) of the *Hogeschool Rotterdam*. In the Dutch educational system, a “hogeschool” is a polytechnic, i.e. university of applied sciences. Accordingly, the official English name of the Hogeschool Rotterdam is *Rotterdam University, a university of Applied Sciences*. In the Netherlands, all art schools have the legal status of polytechnics. In Rotterdam, we are part of a larger polytechnic that includes Bachelor- and Master-level schools for – among others – healthcare, business, engineering, education, architecture. The *Hogeschool Rotterdam* has 25,000 students in total. It was founded in 1988 as a merger of 19 local higher education schools, with the WdKA being one of these schools. (The two other well-known arts schools in Rotterdam, the *CodArts* conservatory and the *Berlage Institute of Architecture*, are not part of the WdKA and the Hogeschool Rotterdam.)

That means that, formally, you are a student of the Hogeschool Rotterdam, will receive its student ID card and should mention it whenever you are required to enter the name of your school in official paperwork.

Curriculum Overview

Structure of the curriculum

The Networked Media programme is a two-year, full-time course, with 120 ECTS credits. Full time means that you will need forty hours per week to attending taught components of the course and developing self-initiated projects. By Dutch law, the upper limit of paid work outside the course is ten hours per week.

The academic year runs to a trimester system, i.e. with three periods of work per year of eleven or twelve weeks each, and a work load of 20 ECTS credits. You also have access to your studio throughout the working week for the whole year, apart from the Christmas holiday and national holidays.

The two-year structure

Trimester 1-4 (first study year and first trimester of the second year)

The first stage is an intense working and learning period made up of a combination of thematic group projects and individual work, supported through individual tutorials and group critiques.

A typical week in the first year of the Master will include two days of work as part of a thematic project. In these projects you construct, as a group or individually, a response to a thematic series of seminars, lessons, exercises, readings, visits and lectures organised by a guest tutor or guest co-teaching team. These projects are oriented towards addressing aspects of the networked media themes.

One day per week (or at times these days are clustered together for more intensive workshops) is set aside for Prototyping led by Michael Murtaugh.

Theory Sessions are run by Renee Turner. These are lectures, presentations and discussions that introduce networked media culture in its broadest and richest sense. This means guest lecturers and readings will come from a variety of disciplines and perspectives such as the humanities, social studies, cultural studies, computer science, art history and philosophy.

Two days a week are reserved for self-initiated practice. Course tutors and visiting tutors follow students through their time at the Institute, ensuring a consistent dialogue about the work.

Trimester 5-6 (last two trimesters of the second study year)

In the second year of the Master, the final two trimesters are devoted to your self-initiated research and work on your Final Project.

You prepare a proposal called a Work Plan (see below) for your final project during the 4th trimester (the beginning of the 2nd year). Whilst for the first four trimesters your work will be constantly involved in relations of feedback with tutors and visitors, it is at this point that you concretely begin work that will be assessed for the purpose of awarding a Master degree.

You continue to take part in Prototyping, but no longer participate in Thematic Projects. Final projects receive tutorial support throughout the working week.

Curriculum Elements

Self-initiated Projects

Self-initiated projects are work that is defined in terms of its scope and development by you, by discussion with tutors, and in possible relation with other students, external organisations, events or practitioners. In this process you are assisted in the theoretical, practical and technical dimensions of the work by:

- dialogue with tutors in individual tutorials
- dialogue with tutors and students in group critiques
- by tailoring your technical plan to the learning requirements of the work

Whilst your self-initiated projects can advantageously be of a purely experimental or speculative nature, you may also wish to establish some kind of connection with outside agencies, such as competitions, exhibitions, NGOs, community groups etc. in order to produce work. Their relationship to the work might be configured as a client, collaborator, commissioner and so on. You are encouraged to make such arrangements and share information about possibilities for them with other students.

Where possible, you will be supported in carrying out such work. At the same time, you need to make sure that you do not commit to any kind of activity that precludes you from carrying out the other parts of the Master course. It is therefore crucial that external, self-initiated projects are based on agreements and communication with the course tutors. All self-initiated work should be carried out with the support and shaping tutorial input of tutorials from visiting and permanent staff.

A Note on the Relationship of Coursework to External Work

Given the nature of the course it is likely that you use the skills and interests that bring you to it and that you develop within it in order to work, to make some money. The relationship of work to education is often a fraught one, but they can also usefully overlap. This is particularly so in cases where you operate as a freelancer in direct relation with a client, perhaps less so where you may work executing designs to the supervision of others. Often clients demand, and can only cope with, reductive or common-sensical understandings of digital media. This can lead to the work done in such contexts seeming to be split from the more considered or experimental work done as part of the course. In this sense of course they are split.

However, it is the policy of this course that such work can also be usefully learned from if thought through from the full range of technical, practical and theoretical angles it implies. This means firstly, that such work can be discussed and perhaps made as a normal part of your self-initiated practice. More problematically, it means that the work should and will be considered with the same rigour and openness to discussion that is required of all that produced in the course. Given this however, and in order to maintain standards, we do need to prioritise the educational and research functions of the programme. For this reason, *no work which originates as a commercial commission can be assessed according to the criteria of the outside commissioner*. In other words, compromises forced upon you from an outside party are no acceptable excuse for submitting an inferior project.

Tutorials

Your individual practice is your basic point of reference throughout the course. Direct feedback on your individual development is given in individual tutorials, which are tailored to your specific interests and needs.

Tutorials may be carried out by visiting tutors and by permanent staff. Often, research fellows are also available for tutorials and general consultation.

The tutors each have a regular schedule of visits. To meet a tutor, you sign up on the list of studio visits on the office door, or you make an appointment for your next meeting at the end of your tutorial.

Group Tutorials

If two or more participants are working on similar or related work, or if they share a concern for the same question or issue, a joint tutorial may be useful.

Guests

There is a regular programme of seminars, lectures and workshops given by visiting tutors. They are usually available after the seminar for a limited number of tutorials. Sign up for a tutorial in advance.

In addition to the regular tutors, guest tutors can be invited for individual tutorials as well as for presentations or group discussions in consultation with the course director. Especially when working on your final project, the specialist advice of a guest tutor can be stimulating.

Planning

Do take the time to plan for a tutorial. Think of questions in advance. What are you going to show? Do you need to prepare any equipment? Should it be in your studio space or elsewhere?

Do take notes. Make sure that you record decisions, key information or points for consideration, but don't let writing get in the way of communication.

Prototyping

Purpose

Prototyping is about conducting research through an iterative process of making, communicating & testing, and reflection. Prototyping asks you to combine practical technical knowledge with your own research questions linked to the thematic projects, and encourages producing designs that "work" not only in terms of the technology, but on a communicative level to explore particular ideas.

Through prototyping, fundamental concepts of programming will be explored in the context of tools and methods familiar to those with a design background. Graphical interfaces will be contrasted with command-line interfaces as a means of going beyond traditional "iconic" and "user-friendly" ways of working - for example with Graphical

User Interfaces and What You See Is What You Get tools - toward the procedural and text-based . Effort will be placed at finding ways to bridge traditional top-down design tools with a code-oriented approach. You do not need to have a particular level of technical experience. What is expected of you is an active engagement with and willingness to explore networked digital media technology. Students of all levels and previous experience will be encouraged to stretch their ways of working and knowledge to hopefully explore previously unknown or uncomfortable territory and broaden their palette of tools.

During the prototyping sessions, you will develop skills in being able to demonstrate and communicate your work to different kinds of audiences and in a variety of situations (online, installation, writing, in-person). To achieve this you will be required to work on different stage of prototyping from proof-of-concepts works to fully functional objects. While the prototyping sessions will allow you to explore the different stage of technical production and communication, you should keep in mind that prototype works are not sufficient to pass a thematic project. See the thematic project section for the requirements.

Prerequisites

You do not need to have a particular level of technical experience. What is expected of you is an active engagement with and willingness to explore networked digital media technology.

Core Technologies

The acronym LAMP is sometimes used to describe a combination of technologies at work behind many web-based projects. LAMP stands for Linux, Apache, MySQL, and PHP (or Perl, Python) which are respectively an operating system, web server, relational database, and scripting languages. In the technical days, we will look at what these technologies are, how they work together, and gain practical experience dealing with each. In this course, we generally will be working with GNU/Linux or Mac OS X (an operating system with an underlying BSD Unix) on laptops, Linux based servers, the Apache web server, MySQL relational databases, and Python as the primary scripting language. The course also includes fundamentals of page design with HTML and Cascading Style Sheets (CSS), as well as client-side scripting with JavaScript, and the use of plugins to present (streaming) time-based media.

Why Python?

Python is a relatively young programming language with a clean syntax and modern design. As a first language, Python encourages good programming practice and discipline which makes picking up other languages relatively straightforward; an essential skill when often one must adapt to a variety of languages depending on the project. For the advanced student, Python incorporates many sophisticated concepts found in other high-level programming languages like C++, Lisp/Scheme, Smalltalk and Java. Python is suitable both for webserver-based scripts as well as for writing applications making use of MIDI, OpenGL (3D), and other non-web technologies, and has become popular as a scripting and plugin-writing language in programs such as PD and The Gimp.

Throughout the course, concepts first learned in Python will be shown in other

languages to emphasise the underlying commonalities. Other languages and technologies arising from individual students needs and interests will also be incorporated into the program as much as possible.

Alongside these core elements, other technologies, concepts and approaches can be drawn in via the technical plans.

Technologies & Topics

A example of the commonly covered topics: Web: Python (Django), XHTML, CSS, Javascript (jQuery), SVG / Database: MySQL, SQLite / Hardware programming: C (Arduino) / Command-line interfaces and scripting: bash, ffmpeg, imagemagick, sox / Plugins: inkscape, gimp, firefox / Distributed Version Control: git, gitorious

Structure

Meetings are either once a week on Tuesday starting at 11, or clustered into a series of days as an intensive workshop. Readings may be assigned for the following week. In the first half of the trimester, there will be an emphasis on in-class assignments to be completed that day; students present their work to the group at the end of the day. In the latter half of the trimester, students will be able to meet one-on-one with the instructor to review progress on their work, and to receive specific tutorial support.

Personal Plans

You will be asked to maintain a personal plan on the wiki. The personal plan acts allows you to track your progress, helps prioritize course work, and helps staff to coordinate support.

The personal plan is a place to evaluate your current position and to reflect on your progress. How do you learn best? What forms of instruction or information seem most effective for you? How can you collaborate with other students to aggregate skills and information? Use the personal plan as a way to define your learning strategies. Do not be "wiki-shy", make the platform yours and use it as a sandbox and research log to track your progress, collect ideas and share documents.

Theory Session

The Theory Sessions are led by Renee Turner and consist of readings, guest lectures, discussions and presentations which relate to key issues within networked media culture. Through these sessions you will be introduced to various fields and disciplines such as aesthetics, rhetoric, feminism, semiotics, cybernetics, cultural studies and the history of contemporary media arts and design, computer technology, Internet and software culture. The aim is to equip you with a critical and historical perspective and establish a common intellectual foundation among all students. The sessions are designed to help you situate your practice within a larger discourse.

Note: In the fifth and sixth trimester of study, when students are working on their final project, attendance is voluntary.

Thematic projects

The Networked Media programme at Piet Zwart Institute runs one thematic project per trimester. These make up the very core of the course programme. You will participate in four thematic projects over the course of the first four trimesters. The programme's projects offer a thematic framework for reflection, discussion and joint research and production. Each thematic project has one or more project leaders. Project leaders may be a designer, artist, theoretician or other person with an advanced insight into media design and issues relevant to the professional field. Quite often, courses will be run by teams.

Thematic projects offer a framework for reflection, discussion and joint research and production. The projects are intended to support students in understanding their work in relation to that of others in the professional field and in defining a position within a broader cultural, technical and social context.

The projects are not fully 'taught' courses, although they may in part contain such elements as reading seminars, instructional sessions and lectures. They become useful and meaningful for students' development only through active participation.

The learning objectives of the thematic projects are:

- to enhance the ability to question and problematise networked media practice
- to develop artistic and technical skills
- to enhance knowledge and understanding of contemporary cultural, scientific and technical discourse
- to develop a critical and conceptual vocabulary
- to become acquainted with research and production methods
- to learn to map out and compare different perspectives and positions on a subject
- to develop skills of dialogue and of making an argument in writing, presentations and discussions
- to make work with theoretical, technical and practical inputs that are developed in relation to others
- to define your potential terms of engagement with the contexts relevant to your work
- to develop appropriate ways for situating and promoting work
- to engage in peer-group assessment

What does a thematic project entail in terms of time?

Normally, a project lasts one trimester. Usually, there are day-long group meetings once a week, on a regular day. In addition, students are required to reserve extra time for reading, researching, production work, or preparing for a presentation. Students invest at least two days a week on a thematic project, but may also devote their self-initiated research time to this work.

How many projects am I expected to take?

You must participate in four thematic projects in the course of the first four trimesters. We run one project per trimester.

Reading

All thematic projects often involve related reading. It is essential that you follow this. In addition, most projects will have a list of other suggested texts and / or media. You are strongly encouraged to make good use of these suggestions.

Presence and participation

You are expected to take part in the meetings, prepare for discussions, and contribute to presentations and the programme of work. With good reason, you may miss one meeting. Please inform the project leader(s) in time. With very good reason, you may miss two meetings. *However, missing more than two meetings will be understood as a disinterest in continuing with the project, and practically means that you cannot graduate within two years.*

Thematic Project Deadlines

All Thematic Projects entail a deadline for the production of:

- a project in networked media
- an essay

These must be delivered on time. Each project will involve different forms of feedback on these elements. You are very welcome to consult tutors other than project leaders on approaches you might take to such work and for advice on resources and practice.

Master Fine Art and Master Lens-Based Media: Thematic Projects

You may, following consultation with and approval from the course director, take part in a Thematic Project being run as part of the Master Fine Art programme or the Master Lens-Based Media. Such participation may well be extremely useful. It may be necessary to attach certain conditions to participation, for instance in regard to essay-writing or the specific outcome of the project in order to maintain your flow of work within Networked Media.

External study in general

You may study up to one trimester outside the Master Networked Media, either by attending a Thematic Project in a different course (see above) or studying abroad. Currently, we provide exchange opportunities for the Pathway New Media of Merz Akademie Stuttgart (Germany), the new media class of Hochschule der Angewandten Künste Vienna (Austria) and the École Supérieure des Beaux-Arts in St. Etienne (France).

Group Critiques

Group critiques provide an opportunity for you to share your working process and to receive feedback from your peers. Group critiques are meetings in which participants discuss and comment on each other's work. These meetings take place on a regular basis and all students are expected to participate in them. At the beginning of each trimester, you will be assigned a date for your critique.

In preparation for your critique:

- Consider how visual/auditory aids could help your presentation. A graphic or animated sketch could greatly help to convey your intentions. A short video may be a useful way to document experiments or sample uses of your work.
- You may want to take snapshots as you work (screenshots, HTML files, backup versions); show the problems you encounter and the solutions, discoveries, surprises you uncover along the way. During your critique, it can be very useful to show these snapshots and talk through your experience.
- Formulate key questions you have about your work, where you have doubts and how the group can think with you about how to improve your project.

The core of a group critique is a presentation or demo of a work in progress. It is not expected that you show a polished, finished product during your critique. You could also use it as a forum for user testing, or think of it as an available time for attention to be paid to your work by the group and in which you step outside of the usual demo framework. The intention is for you to share your working process, complete with any unresolved problems. You may find it helpful to take notes during the feedback.

If you are presenting your work to the group, the group critique functions as a forum for critical reflection on your practice, and allows you to test your work and intentions in relation to the ways others read the work. The comments of fellow participants often open up new perspectives. Vice versa, discussing the work of fellow students is an exercise in reading design, and in understanding how certain decisions generate particular meanings and effects.

The learning objectives of the group critiques are:

(for students presenting)

- to reflect on practice and its interrelations with theory and technology
- to question and problematise (aspects of) practice
- to learn to differentiate between intention/concept and outcomes
- to analyse working processes, and to gain an understanding of their effects and consequences
- to understand and enhance the ability to steer processes of reception, interpretation and use
- to locate the work within an appropriate conceptual, historical and critical framework
- to develop your own criteria for the analysis and evaluation of your work
- to formulate the aims and objectives of specific works and of your design practice in general
- to explore appropriate ways of relating work to the contexts in which it becomes public
- to enhance the ability to write and to make an argument
- to clarify potential technical resolutions to working problems

(for students commenting)

- to enhance the ability for critical analysis of theory, practice and technology
- to enhance design literacy
- to understand processes of reception and interpretation
- to enhance the ability to compare different perspectives and positions on a subject
- to develop a critical vocabulary
- to develop skills of communication and dialogue
- to engage in peer-group assessment and to make possible collaboration on specific problems or projects
- to develop a capacity to talk about technical objects in terms of their specific domain of articulation and their wider implications

How do the group critiques work?

(for students presenting)

For each group critique, two or three students prepare a presentation of a few selected works. You may present finished or even 'older' work, but are also recommended to present work in progress. The students may choose to collaborate, for example by making a joint presentation or by jointly formulating questions or issues for discussion. The work should be on view at least two working days prior to the group discussion. Preferably before. If it is online, email all participants and staff with a URL where it may be viewed and otherwise make sure that people are able to view it.

To steer the discussion, the presenting students each prepare a short statement introducing their work and a number of questions related to the presented works. Statement and questions should be distributed at least 2 days before the discussion.

(for students commenting)

During most of the discussion, it is not the student presenting his/her work, but the others who do the talking and reflecting on the work and questions presented to them. It is useful to make notes and formulate your thoughts on the subject before entering the discussion. In the last part of the discussion, the student whose work and statement have been discussed joins in.

Tutorial support

Tutors moderate the group critiques. Tutors will also provide feedback in the process of preparing the statement and questions and the presentation.

You are expected to communicate your statement and questions to your tutor well in advance to receive constructive comments, and this process will often involve reformulating or expanding on your statement in order to become as articulate and precise as possible.

Writing

Writing is used as a tool to analyse your findings and organise your thoughts into an argument that enlightens your interpretation of and position towards the subject of your research. The exercise of writing is a means to help you explicitly address the research and understandings, which are normally perhaps a more implicit aspect of your work.

Essay writing is useful in order to develop practice through explicitly argued contextual understanding. It promotes a critical analysis of one's own position and activity within the domain discussed. Within the Master, such a language-based approach is an important element in media design practice.

This means that you engage in a process of critical reflection in relation to your work. It is an opportunity to make a substantial and integrated investigation of the subjects, current discourses, formative dynamics and the technical, sensual and social approaches which are relevant to your work. Such research not only flows from your own work, but should also feed back into the work you are simultaneously producing.

It is acknowledged that the reading and production of text may be thought of as something alien to the more 'intuitive' world of practice. It is often for precisely this reason that it is valuable – putting down your thoughts and research in writing, and presenting it in a coherent argumentation also helps you sharpen your practical project and reflect its unresolved issues. Texts are media systems in their own right, and we can learn from them and the way they are used. At the same time as we promote the confluence and mutual enrichment of theory and practice, we can also learn from and use their differences.

Some experience in making a written argument as well as a good command of English are required. It is important to keep in mind that a Master is an academic degree, and that the research writing will have to conform to the basic academic conventions. This is not just a formality, but also a question of professionalism. It will help you to present your work in conferences and write critical essays as an artist and designer. (Important visual designers from Tschichold and El Lissitzky to, for example, Spiekermann and Tufte have been critical writers as well.)

All research requires carving out a terrain in an occupied territory. Research is not a pure invention of your own thinking, but it involves relating your work and thinking to the work and thinking of others, and developing your own position in relation to them. The final text should be a coherent essay with a statement or hypothesis, a report on the research supporting your argument, and a conclusion; and you are expected to be able structure the text in such a way that your argument is understandable to an outside reader.

What will be written?

- For each thematic project you will write an essay of circa 2,500 words.
- In the context of this course, “essay” simply means: a critical research paper on a networked media (or related) topic.
- For your assessed Final Project you will write a Master's thesis of circa 8,000 words.

What kind of support is available for essay writing?

- There is an introduction into essay writing at the beginning of every course year.
- Most thematic projects involve a drafting process for your essays. You can

- develop your ideas, structure and use of materials through these
- Essays receive tutorial feedback. Please take it into consideration when you start your next essay. Otherwise problems often continue from one text to the next.
- You can ask tutors to provide feedback on your essays as they develop, do make sure you think about the amount of time required for this

Essay Circles

Once a trimester we hold a short session in which all students meet, bringing their draft thematic project essay with them. Students swap their text with the student next to them and provide careful feedback on the one that they read.

Key points to pay attention to:

- structure and quality of argument
- use of evidence or source material
- clarity of writing
- attention to alternate arguments and sources
- managing 'interdisciplinary' material
- good presentation and clear referencing

Final Project

The last two trimesters of the course are reserved for individual research and production of your final project.

Work on the final project however begins at the very beginning of the second year. Throughout the first trimester of this year, you are required to develop a work plan (discussed in detail below) which establishes the theoretical, practical and technical grounds of your work towards the summation of the programme.

Final projects offer a concentrated period of time to process the insights and experiences gained throughout the first four trimesters and to translate their implications into your own work and working methods. In this process, you are expected to be able to not only produce new work, but also to develop a strong sense of the criteria that are crucial for the evaluation and development of your work.

Accompanying final projects all students write an essay or 'project report' developing ideas related to or directly arising from the project. This essay is of the length of circa 8,000 words.

The final project has a sustained procedure of assessment associated with it. This procedure also provides structured feedback and dialogue about the work. Final projects are also substantially sustained and supported by individual tutorials and group critiques. It is important that you arrange these and plan carefully to benefit from them.

Final Project - Work Plan

The work plan is a tool. It is there to help you structure a plan for your final project.

It is also intended to help you become more aware of where you want to go with your

work, to steer your development and to see how the course elements can best contribute to this. Here, writing is used as a tool to evaluate and speculate, and a means to be precise and explicit. The plan functions as a point of reference within the programme for both you and your tutors.

Working with this plan will teach you to develop your practice through self-evaluation and setting yourself a goal. Thus, in order for the work plan to actually 'work', it is important not to regard it as an aim in itself, but as part of a trajectory, or better, as a tool which will provide insight in the trajectory from one point in your development to another.

The learning objectives of the work plan / project proposal are:

- to engage in self-evaluation
- to identify the trajectory of the work's development and to indicate steps and strategies for steering this development
- to enhance the ability to reflect critically on practice
- to develop your own criteria in relation to your work
- to enhance writing ability

How does the work plan develop?

In principle, the work plan will involve three stages:

- During trimester 4 and over the preceding summer break you begin to discuss, evaluate, research and plan possible projects to represent your transition to Master level.
- At the end of trimester 4, a second work plan is made in relation to the final project proposal. This is presented to and assessed by a panel consisting of staff and an external examiner.
- At the end of trimester 6, the end of your studies, you write an evaluation of your final project (this is part of the project report), which will be discussed at a final group critique.

Why is it done in writing?

There are a number of reasons why writing down your work plan is important. First of all, formulating your aims in writing will stimulate you to be more precise and explicit than you would be in an informal discussion. Secondly, having this written document to refer to will make it easier to compare where you were when you first wrote it, and where you are at a later stage. And thirdly, writing and rewriting the work plan is a useful exercise in the writing component in the Master as a whole.

Tutorial support

Your tutors will be closely involved in the process of evaluating your progress, and in defining the aims for your work and their implications for your studies within the programme. As with the statement for the group critique, this may involve a process of writing and rewriting in order to be as focused and precise as possible.

Assessment

During the two-year programme, all required course elements (thematic projects, technical days) will be assessed as either 'pass' or 'fail'. In addition, three formal check-points take place.

Second Trimester

The first formal check-point is at the end of the 2nd trimester and is aimed at evaluating the progress of students in relation to the different course elements. This check-point is meant for early feedback on the progress of studies and allows staff and students to make any necessary adjustments that arise. This point can act as a moment when students are able, if they so choose, to 'bow out' with dignity. It is also a moment however to acknowledge the students' progression through a third of the programme period. It is a time to take stock of what has been achieved and to plan the route forward.

At the end of a student's 2nd trimester an integral evaluation takes place. At this moment in their studies they should demonstrate they:

- Have participated in all required course elements
- are creating inventive and imaginative work in relation to the thematic projects and the technical days
- Have an awareness of available and appropriate technology and developed a technical plan
- are able to construct a working pattern
- have become acquainted with research and production methods relevant to the development of their practice
- have increased the knowledge and understanding of technology and its impact on contemporary cultural, scientific discourse as addressed in the thematic projects
- are developing their critical vocabulary and analytical skills
- have engaged in dialogue with peers and tutors

Fourth Trimester

In the 4th trimester, students start preparing their draft proposals for the final project. This takes the form of a work plan. The scope and object of the project in terms of its subject material and the methods used for its realisation are negotiated with tutors.

The Work Plan goes through the following stages:

Trimester 3.

- the student group is re-informed about the process ahead in a group meeting.

Over the summer break

- you should engage in research and self-directed learning, discuss ideas, learn skills, prepare draft plans. Consider your abilities and limitations, the work you have done in thematic projects and your own practice as a way of focusing on what you want to achieve.

Trimester 4

- Week 2: second introduction to final projects and work plan/proposal process
- Following weeks: tutorials; continued research and planning
- Week 7: second year students hold a group critique based upon their work plans
- Following weeks: tutorials; continued research and planning
- Week 10: work plan assessment
 1. Two working days before assessment day your work plan should be submitted with selected portfolio (give URLs etc.) and any supporting material
 2. A meeting of the assessment panel composed of tutors and an external examiner examines the work plans/proposals in the morning.
 3. That afternoon, you are interviewed by the panel about the plan and the project. The Project is either: approved; approved with required changes; not approved

If a project is not approved, you will be required, with tutorial support, to submit a new proposal in the first week of the following trimester.

The general and integrated assessment criteria for the fourth trimester are that you can show that you:

- have participated in all required course elements
- have the ability to question and problematise media design practice and are capable of formulating a research question of relevance to your own practice and that of media design
- have the competence of formulating judgements and solutions on the basis of incomplete or limited information
- can manage your own learning process and have an awareness of research and production methodologies appropriate to your individual work
- have a mastery of a basic set of techniques relevant to advanced practice and an understanding of techniques applicable to your own research
- have increased your knowledge and understanding of contemporary cultural, scientific and technical discourse and are capable of relating this to your individual interests
- have developed a critical vocabulary and have the ability to map out and compare different perspectives and positions
- have created a body of theoretical, practical and technological work
- have developed skills of dialogue and of constructing an argument

6th trimester – Final Project

The final project (design work and writing) are presented for assessment at the end of Trimester 6.

The exam committee consists of tutors of the Networked Media programme and an external examiner.

At the final assessment, final projects are in principle assessed as either 'pass' or 'fail'.

If a final project were to be assessed negatively, the assessment panel may invite the student, based on the work already done, to resubmit it within two months after substantial amendment or reworking.

With a successful final project presented at the end of the 6th trimester students can demonstrate that they:

- are independently able to initiate and develop an inventive research project, of worth or relevance to their own practice and to the development of Networked Media
- are able to integrate technological, aesthetic, practical and theoretical aspects of their work
- are able to produce a project with a practical outcome for a user / public. This means that they can implement a concept and realise something that can actually work.
- have a comprehensive understanding and mastery of techniques applicable to their own research or advanced Networked Media practice
- have the ability to develop and evaluate methodologies appropriate to their work and to be able to manage multidisciplinary design processes individually and/or in collaboration with others
- are able to locate their work within an appropriate conceptual, historical and critical framework and to reflect on their position within this framework.
- are able to demonstrate familiarity with the body of knowledge associated with a study topic and can search for information in the literature and artefacts in which such knowledge is embodied; and can select from it and use it critically and imaginatively
- are able to formulate their own criteria and evaluate and develop their work in relation to these
- are capable of constructing a complex argument in terms which others can understand and find useful and are able to communicate their findings and conclusions clearly to specialist and non-specialist audiences

What if I don't finish my final project in time?

Normally, your final project should be finished and presented at the end of the 6th trimester. If you don't manage to finish before the agreed deadline, you will have to submit what you have at that moment for critical evaluation by the subject assessment panel. Based on the research you have already done and the progress already made, they may agree on granting you an extended submission deadline. A deadline extension is only given once, and if you miss the second deadline, no third chance will be given.

What if I receive a 'fail' grading?

If your final project has been assessed negatively, the subject assessment panel may invite you to resubmit it after substantial amendment or reworking. What the amendment or re-working involves, will be discussed with you in detail.

A chance to resubmit is given only once. Re-submission follows the same assessment procedure as the initial submission.

The assessment protocol and procedures for appeal are laid down in an official Piet Zwart Institute Exam Regulation (Onderwijs- en examenreglement), validated by the director of the Willem de Kooning Academy and the board of governors (College van Bestuur) of the Hogeschool Rotterdam.

The role of the external examiner

The main task of the external examiner is to ensure that the final project is of an appropriate standard, that assessment procedures are carried out properly and that students receive a fair assessment.

People

Staff

- Renee Turner Course Director
- Michael Murtaugh Core Tutor
- Aymeric Mansoux Core Tutor
- Brigit Lichtenegger Systems Administrator / technical teacher
- Stock Systems Administrator / technical teacher
- Leslie Robbins Project Coordinator/ Course Assistant

Partner Institutions

The Networked Media programmes at Piet Zwart Institute have a number of collaborating institutions.

Most closely these include:

- Stichting WORM, Rotterdam
- V2_organisation for unstable media, Rotterdam
- CONSTANT Association for Art and Media, Brussels
- Virtual Platform, Amsterdam
- Merz-Akademie Stuttgart
- École Supérieure des Beaux-Arts, St. Etienne

General Information

Facilities

Computers

The Master Networked Media and Research programmes have the use of the following computers:

- 2 Apple G5s For general 'open house' use.
- 2 Apple MacPros Audio-Video usage. For other purposes when necessary.
- 2 Linux machines For general 'open house' use.
- 1 MacBook and 10 Apple iBooks. For general 'open house' use and loan to individual students.

Using your own computer

You are expected to bring a computer for your course work. An old laptop or cheap netbook is sufficient for following the course. We are very happy to make arrangements for it to be connected to the network etc. If you cannot afford your own computer, please see the course director and systems administrator to be provided with a machine.

Other media equipment

We have facilities for sound recording and mixing, digital still photography, digital video etc. which is available for use and can be taken using our check-out forms.

There is also a good supply of old computers, monitors and other hardware ready for cannibalisation and reuse for the production of installations etc.

Insurance of equipment

All equipment owned by PZI is insured when in the building. If you wish to take any piece of equipment outside, you *must* have adequate insurance (!). All equipment borrowed must be signed for on the appropriate form which delegates responsibility for the security and condition of the equipment to you.

Network

Internet bandwidth: Each Ethernet port allows a 100MB connection to the local network centre.

LAN and file-server: Each student is allocated 500MB of storage space on a file server. Please see the system administrator for further information about access to and use of this facility.

Website

The Piet Zwart Institute maintains a website at <http://pzwart.wdka.hro/>

Every student is allocated a homepage. Make use of this to construct public a portfolio of work, to present personal information, publish projects and work-in progress, to construct statements and make links.

Library

Books relevant to and requested by Networked Media students and staff are provided by the “Kunstkelder” (“art basement”) section of the *Mediatheek* in the main building of the Willem de Kooning Academie, Wijnhaven 61. It is also possible for you to obtain books

via inter-library loan. A selected range of ca. 200 essential textbooks for our course will be available as a permanent loan in our building starting this fall, and can be signed out. You can search all libraries of the Hogeschool Rotterdam – including the WdKA Mediatheek and our own reference stack – on <http://vubissmart.hro.nl/webopac/vubis.csp>.

For advanced library research, we recommend using a research library such as the Royal Library in Den Haag (which is only a twenty minute train ride away from Rotterdam).

If you have suggestions for books to be purchased, please do let staff know!

Facilities at Blaak 10/Wijnhaven 61

There are a range of fabrication workshops in print, sculpture, textiles, plaster, video, photography and other media in the main Academy building at Blaak 10. You are entitled to use these by arrangement with the appropriate staff.

Student participation: evaluation & feedback

Student participation and shared responsibility are important elements throughout the programme, and essential for its quality and success. It is crucial for the effective day to day running as well as the general development of the programme that staff and students take part in dialogue and exchange of views relative to the programme. We have therefore developed the following communication channels for your critical and evaluative views and opinions to be voiced.

Course meetings/opleidingscommissie

These are regular meetings of students, mentor, system administrator and course director to discuss and monitor the day to day running of the programme, the accessibility of technical facilities and the effectiveness of organisation and communication. They can also include the evaluation of curriculum elements and be a sounding board for the development of new ideas to include in the programme. Normally these meetings take place twice a year

- Any points to be raised at the meeting should be forwarded to the course director beforehand, or included in the 'Any Other Business' part of the agenda.
- Any decisions made at the meeting will be noted and displayed next to the agenda points. This format is followed in order to create an open cycle of discussion and decision.

Project evaluation

Each thematic project involves an evaluation with its participants and project leaders. During these evaluation meetings, you have the opportunity to make comments and critically review the presentation, content, teaching and assessment of the project, as well as to think through your own performance within it. It is expected too that the thematic projects also include an element of reflexive debate on the formation of the project as an integral part of their work.

Administration of the Willem de Kooning Academy

Director's office

- Richard E. Ouwerkerk, director
- Annemieke Maas, secretary
- Monique Bassant, management assistant
- Bienneke Fasen, management assistant
- located on the 1st floor of Blaak 10, tel. 241 47 78

Admissions office (bureau inschrijving)

The admissions office of the Hogeschool Rotterdam is responsible for official student registration and the payment of tuition fees.

- opening hours:
- Mon-Fri 9.00-17.00 hrs
- located at Museumpark 40, tel. 241 42 00, fax 241 45 41

Student administration (onderwijsadministratie)

The student administration office deals with facility cards, the registration of student progress, diploma's, tuition fees and financing.

opening hours:

Mon 9.00-11.00, 13.00-15.00, 17.00-20.00 hrs

Tue-Fri 9.00-11.00, 13.00-15.00 hrs

office director: Arjan Lagendaal

located on the first floor of Blaak 10, tel. 241 47 67.

counselling & complaints

Student counsellor ("studiedecaan")

The student counsellor is a contact person for questions regarding financing, residence permits, study problems as well as personal matters. They are creative in finding solutions for all kinds of situations. The counsellor is independent from the academy, and has only the student's interest in mind. The course director, tutors or others are involved by them only if the student agrees.

Complaints

Students have the right to lodge an appeal against a decision or assessment which they feel is unfair or unjust. An appeal should be addressed to the director of the Willem de Kooning Academy or, in second instance, to the Committee of Appeal (Commissie van Beroep) of the Hogeschool Rotterdam.

A special committee of the Hogeschool Rotterdam deals with complaints about sexual harassment or discrimination.

contact: Jan Ernst, tel. 241 45 21

How to Write an Essay

Essay writing is a core component of this programme. The following guidelines will help you structure your essay into a clear argument.

introduction:

- Every good research paper or book, regardless by whom and on which academic level it was written, boils down to investigating one question or issue. What is the question you are going to investigate in your paper? If you only have a subject you want to write on, but not a question, you need to rethink before starting your essay.
- You might (but don't always have to) say what your method of analysis will be; in other words, map out the journey your reader is going to have to take with you.

Keep the introduction as brief as possible. It shouldn't be longer than one page; one paragraph is better. Your essay will be more engaging if gets right to the point.

The body of your text:

- The body of your text is the journey you undertake in writing: it is how you get from point A to point B, with the conclusion as the final destination. In other words: Derive sub-questions from your major question and have your text logically go from one to the next. You always need to know the next point in your argumentation, and drive your text there.
- Keep your research question, as outlined in your proposal and reworked for your final text as a point of reference in editing your material.
- A very important element of the body of your text is giving examples, working through them and analysing them. Always base your arguments on observations you make in the material you investigate! However, your body of text should not be merely an accumulation of examples and citations, but develop your own original argument.
- It is about comparison and contrast; this is not the same as that, that implies not the same as this... Make clever juxtapositions that give nuance to your argument. It is useful to develop your essay from a disagreement you have with someone else's position, writing or work.
- Descriptions are useful but don't overdo the detailing:

Details are important when they give evidence either through their fact or poetry. Too many details however can be fatally distracting from your main point. Use them to enhance not derail your argument or research. Some details may actually be detours which unnecessarily complicate or obscure your argument; if you really need to go off track, put this information in a footnote as a 'by the way did you know...'. In placing it there you don't destroy the flow of your main text.

Conclusion:

- A conclusion is intended to recapitulate all of the information you have gone through in the paper. Conclusions answer, in a more general way, the ideas or questions raised in the introduction.

At this point you should be asking yourself: Did I answer the questions I sought to explore in my introduction statement (and my proposal statement)? Was I successful in going through examples or case studies to prove my point?

- A conclusion can never introduce totally new concepts as part of its argument. That would mean that you haven't done your homework in the main text. Introducing a totally new concept as part of your conclusion is like telling someone that you are driving them to the cinema (introduction statement) and when you arrive you don't let them out of the car but instead you drive off to a vacant lot. Needless to say that as a passenger this can be pretty irritating. Readers are also not very keen on this type of journey.
- That does not mean that your conclusion might not raise particular questions, which are crucial to your conclusion. For example: "In seeing how meaning shifts in the way objects displayed, certain key questions arise about curatorial responsibility. It is clear that we must question how history is being constructed through the contextual and literal framing of objects." Or: "In analysing these mechanisms at work we must ask the following: Who or what is being framed and by whom for what purposes?"
- Do your conclusions have any relevance to you or anyone else? They should and you should say why. You should expand on the effect or implication of your research for your own work, as well as on the position you take within the larger debate on the subject you have addressed. This is the real point of the project report, and it should not be missed!
- No paper, not even a 1000 pages book, will ever answer all questions about its central question. You will have to live with incompleteness. Sometimes, it can be useful though to point to open questions or issues, in other words, left-overs from your thought process that didn't fit into the essay proper. Phrase these points, if you like, as open questions and potential directions of future research as an addendum to your conclusion.

Referencing

Give credit where credit is due! Never borrow thoughts, quotes, or even paraphrase without properly crediting the source. This is done through footnotes and through a list of references at the end of your paper (a bibliography is optional). Accurate, clear referencing offers the reader the opportunity to engage in the process of your research, and to understand how your arguments and ideas have been initiated and developed. Other people may use your paper as a resource to learn more about its topic and pick up related literature from your references. It is also, of course, essential that you distinguish between your own ideas and arguments, and those of other people; the more clear you are, the better you can shape your own ideas.

Conversely, citations do not replace your own thoughts and ideas. Never use sources as unquestioned authorities. The fact that a certain opinion was voiced by a well-known scholar, artist or intellectual doesn't make it true – all the more in the field of media studies with its high amount of speculative (and sometimes half-baked) theories. Theories are there to show you things in a different light, but never to replace your own ideas and opinions.

Plagiarism

Not properly referencing your sources is plagiarism. Plagiarism means to present work

done by others as your own. While plagiarism has been tactically advocated and used in activism and experimental arts to question ideologies of intellectual property, not crediting your sources is unacceptable in course work because it is dishonest to your advisors and fellow students and prohibits others from using your paper as a point of departure for their own research of your subject. Plagiarism invalidates your essay and may result in further disciplinary procedure, including possible expulsion from the course.

Lay out for quotations

Short quotations can be written as part of the flow of the sentence, with quotation marks.

Longer quotations (three or more lines) should be separated from the main body of the text by means of indentation. In this case quotation marks are not needed. For example:

“I agree with Hal Foster when he says:

I supported a postmodernism that contested [...] reactionary cultural politics and advocated artistic practices not only critical of institutional modernism but suggestive of alternative forms of new ways to practice culture and politics. And we did not lose. In a sense the worse thing happened: treated as fashion postmodernism became *démodé*. (Foster, 1998, p.20)

Going further from this point, I would suggest that theory, a key feature of the postmodern enterprise, became *démodé* only after becoming convention...” - Be careful not use too many block quotations in your paper. You should never write a text which just consists of short remarks between block quotations!

The Harvard System of referencing

We do not have a compulsory system of referencing essays. However, we do recommend that you follow the Harvard System.

The Harvard System of referencing works within the text itself and not in footnotes or endnotes. Whenever you quote, or refer to someone's words (directly or indirectly), or use someone's argument, or refer to a source, you should use the system described below.

Whenever you quote you write the surname and the date of publication in brackets. When you quote directly, you should also add the page number:

In studying the anatomy of brains of early man, some 19th century anthropologists came to a conclusion which one writer reminds us was 'at the time considered highly provocative but which is now obvious to every anthropologist' (Wendt, 1974, p.12).

If the name of the writer is part of the sentence itself, put the date in brackets after the name: Wendt (1974, p.12) reminds us that the conclusions of some 19th century anthropologists were 'at the time considered very provocative'.

The same applies when you are not quoting directly:

Wendt (1974) reminds us that the conclusions of some 19th century anthropologists were considered very provocative when they were published.

Sometimes, you find a useful quotation from one author in a book by another. In such cases, reference like this:

Johnson sweeps aside this argument: 'His expressed view of the world has more style in it than sense – or evidence' (quoted in Mason, 1990, p.44).

In this case, you are quoting Johnson from a book which you have not read and which you therefore cannot quote directly. So the reference is to Mason's book, which you have read.

You will sometimes need to refer to more than one book or article by the same author, each published in the same year. In this case, put a letter after the date to show which of the publications is referred to in this instance:

Peterson (1989b, p.45) was risking the wrath of her profession by suggesting that 'there is more to be gained by restraint than by rushing headlong into open debate'.

list of references

At the end of your text, you should list all sources you have used. They are normally set out as follows:

Surname, initials of author(s) (date) Title, place and name of publisher

book

For example the complete reference for a book will look like this:

Gilbert, S and Gubar, S (1988) No Man's Land New Haven, Yale University Press

article

When referring to an article in a journal, you should put the title of the article in quotation marks, and the journal title should be underlined:

Rollerton, F (1989) 'Wordsworth's Secret Dreams' in Citations Vol.12, No.4 (pp.113-124)

If you are citing an article from an author from a book edited by a different author, the reference works as follows:

Silvershush, P (1978) 'Fellowship Societies' in Donaghue, P. (ed.) The Roots of Masonry Sidney, Outback Books

The list of references or bibliography should be in alphabetical order.

When you refer to more than one work by the same author, these should be set out in chronological order.

When you refer to more than one work by the same author from the same year, they should be differentiated by adding 'a, b, c' to the dates: 1989a, 1989b, etc.

Bibliography

The reference list should include *only* those works you have cited in your text. There may, however, be reasons why you would wish to offer a list of works which have informed your general thinking and understanding. If you want to cite works in addition to your references, this should be done in a separate list headed 'bibliography'.

Illustrations

If you use illustrations of work by others or by yourself in your text, make sure you use accurate referencing. Referencing for illustrations will normally include (elements of) the following:

Name of the artist, title of the work, date, materials, size

For example:

Pierre Huyghe, Sleeptalking, 1998, 16mm film, 15 min.

You may add if appropriate:

Site, exhibition, collection or commissioner; place

For example:

Pierre Huyghe, Sleeptalking, 1998, 16mm film, 15 min. Installation at Manifesta, Luxembourg, 1999.

Fiona Banner, Le Bar du Peuple, billboard, Marseille, 1995.

Document formatting

Please submit your essay as a PDF file. Its first page should be a sheet stating its title, your name, the name of the institution and the course, the thematic project, the date. All pages should be numbered. Footnotes should be continuously numbered throughout the whole document.

If one adds all requirements for referencing, quoting, citations, footnotes, page numbers etc., it is hardly possible to complete an academic paper in a Wiki, in plain ASCII, in HTML or a similar basic text format. The standard software recommendations are therefore either a traditional word processing program such as OpenOffice.org Writer or a markup/text formatting system for academic writing such as LaTeX or DocBook XML. (The Linux program LyX provides an easy-to-use word processor interface for LaTeX.) You are advised to choose the system that is most straightforward for you to use and interferes the least with your writing.

Further reading

For guidance on writing essays and good research practice, you are advised to consult: Tom Davis, *How to Write an Essay*, [<http://www.english.bham.ac.uk/staff/tom/teaching/howto/essay.htm>]. For a more advanced introduction, read Rob Barnes, *Successful Study for Degrees*, Routledge, 1992, chapter 6, p. 64-87. (This book can be found in the course library.)

